

ABSTRACT

A fast ring switchover is enabled in packet level processing at the time of ring configuration, and as a result, a system switchover function can be implemented in an Ethernet switch or the like by a ring switchover method in a network constituted of layer 2 switches connected in a ring shape, each layer 2 switch having a path control function and a failure detection function. The ring switchover method includes the steps of providing in each layer 2 switch an address learning table in which a Media Access Control (MAC) address and a corresponding port are stored; on detection of a link failure between mutually neighboring layer 2 switches, transmitting a failure notification frame packet from each neighboring layer 2 switch; and in the layer 2 switch having received the failure notification frame, recording a Media Access Control (MAC) address of said layer 2 switch into the failure notification frame, and transferring the failure notification frame to a neighboring layer 2 switch.